

[Transcript] AI Hustle: News on Open AI, ChatGPT, Midjourney, NVIDIA, Anthropic, Open Source LLMs / AI Crafts 1M Synthetic Hands to Supercharge Amazon One Training

Welcome to the OpenAI podcast, the podcast that opens up the world of AI in a quick and concise manner.

Tune in daily to hear the latest news and breakthroughs in the rapidly evolving world of artificial intelligence.

If you've been following the podcast for a while, you'll know that over the last six months I've been working on a stealth AI startup.

Of the hundreds of projects I've covered, this is the one that I believe has the greatest potential.

So today I'm excited to announce AIBOX.

AIBOX is a no-code AI app building platform paired with the App Store for AI that lets you monetize your AI tools.

The platform lets you build apps by linking together AI models like chatGPT, mid-journey and 11Labs, eventually will integrate with software like Gmail, Trello and Salesforce so you can use AI to automate every function in your organization.

To get notified when we launch and be one of the first to build on the platform, you can join the wait list at AIBOX.AI, the link is in the show notes.

We are currently raising a seed round of funding.

If you're an investor that is focused on disruptive tech, I'd love to tell you more about the platform.

You can reach out to me at jaden at AIBOX.AI, I'll leave that email in the show notes.

So Amazon of course is a name that is synonymous with innovation and convenience and they have been working to kind of revolutionize the way that we make payments and interact with point of sale systems.

So the latest kind of step in this direction is Amazon One, which essentially employs a blend of technologies like generative AI, optical engineering and machine learning.

So while Amazon's internal team kind of calls this experience, you know, they say it's like magic, I think it's essential to kind of examine the technology's benefits and also some of the potential drawbacks in, you know, in what's going on in this space right now.

So at its core, Amazon One is a device designed to make your shopping experience fast, convenient and contactless.

So you no longer have to, you know, fumble with your wallet or your phone just to wave.

Essentially they want you to just wave your hand over an Amazon One scanner and go your way.

It'll automatically bill you.

So the system is rolled out to over 500 Whole Foods market locations, right?

They want to do this in, you know, in-person locations, so they're using Whole Foods, which Amazon owns to do kind of the testing for this, and also some various third-party venues such as sports stadiums, travel retailers and a couple others.

Each Amazon One device uses infrared light to scan the unique topography and vein patterns of your hand.

So then your palm specifically.

So this information is then turned into a palm signature, which is linked to either your Amazon account or your credit card.

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It sounds simple, but achieving this was really a difficult task that Amazon undertook. And essentially, Amazon faced a really big challenge while developing this technology. So the biggest thing here is that there is a scarcity of human palm data, right? There is no database where you can go and grab, you know, a bunch of human palm images. The solution, though, came in the form of generative AI. So a subset of traditional machine learning, of course, is generative AI. And Amazon used generative AI to produce millions of synthetic palm images, replicating real-life conditions like varying light and also hand poses, right? So they were able to generate like a ton of images where the hand was at different angles with different lighting and all of these different synthetic hands. And it turns out that those were similar enough and good enough that they were able to use that to train what a hand looks like. So this synthetic data allowed Amazon to train the AI models, increasing the system's accuracy significantly. According to Amazon, the system has already been used over 3 million times with an accuracy rate of 99.99999%. So pretty much perfect, aside from some anomalies or some, I don't know, some crazy thing. Maybe someone's got like a big cut or scar or something on their hand, right? Really, really interesting. Now, I think while the idea of kind of linking your biometric data to your financial information might raise eyebrows, Amazon insists that customer privacy is a top priority. So the system operates beyond the normal light spectrum and, as a result, cannot discern skin tone or gender. That's part of that's kind of built into their system. So it's interesting, right? Because you can imagine some people would have concerns about biases or other ideas, I guess, around this, which, yeah, interesting. In any case, Amazon 1 doesn't identify you as a person, it only matches a unique palm signature to a payment method. So that is also another interesting take, right? That it's not specifically identifying you as a person, but they just have it linked up to your stuff. So that's interesting, although that other people using some of the same technology might do something different. But at the moment, that doesn't seem too invasive, I would say, from my perspective. In any case, Amazon 1's capabilities are not confined to payments alone. It's being adapted for other uses like loyalty card linkage, age verification, for example. And it's also being tested with customers like Panera and Coors Field. So I think despite Amazon's kind of emphasis on privacy and data security, there are still questions surrounding the ethics and potential misuse of biometric data. One thing I think that you kind of have to consider is, you know, what could happen if this data were compromised or misused in any way? So in the age of increasing data breaches, I think it's a concern that you can't ignore,

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which is, like, do you really want...

It's so tricky, right?

It's like, do you really want your biometric data to be stored somewhere where it could be leaked or someone else could get access to it?

I think of this a lot when it comes to like fingerprints, handprints, irises, right?

You have Sam Altman doing his want world coin or whatever, where it like scans your iris to kind of create a profile on you.

And it's so tricky when you have your own biometric data in a giant database where if there's a hack and then they steal your biometric data, to me that feels like so much more invasive than just figuring out what my password is or what my credit card number is.

You change your credit card.

You can change your password.

Like your palm, your iris, like these are things that never change and having them in a database could be kind of sketchy if there was a leak, right?

Something about your iris is that will virtually never change.

So you imagine something like a piece of biometric data, if that leaked from Sam Altman's world coin, right?

Let's say the database of iris is leaked, so the Chinese government gets it and now they have built a profile on you because they know everything you do on TikTok, but now they also know your biometric iris, they know your handprint, they know your fingerprint.

Like, I don't know, to me it's a little crazy and yeah, I don't know.

I think there's definitely some data concerns that you have to think about there.

So especially when you think about like they have that info, so then they can go a lot further in perhaps creating different systems, you know, you kind of look at in China, they're doing their social credit system.

So imagine you go into a store and it identifies like it sees your iris and then has a profile on you, knows you have a worse social credit system, then it charges you more for things or I don't know, there's all sorts of crazy dystopian concepts.

So just be aware, right?

There are some things, there's some conversations we need to have around that.

I think while Amazon has trained the system to reject fake palms like silicone replicas, the technology is still in its early stages.

So although the tech giant has a accuracy rate, the long-term performance remains to be seen and you know, it says like they've trained the system to reject fake hands like silicone replicas, but I wonder like, it's such an interesting concept like right, like imagine if you were to go and like make a mold of someone's hand and then you were to like put that on as like a glove on your own hand.

I wonder if you could get around that and essentially like you make a mold of someone's hand and now all of a sudden you have like their bank account and no matter how many times they change your credit card, you always can access their bank account with like your palm reader.

So definitely like that is something that is alarming to me and I know they say like silicone replicas, but I don't know.

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Like I feel like you could probably have seen some pretty impressive, some pretty impressive makeup artists.

I'm sure you could make this thing look like your literal hand and you know, make the texture right and the lighting right and the colors right.

I don't know.

Maybe take a picture of someone's hand.

Maybe you could 3D print a fake hand using whatever material you want.

You get a picture of someone's hand, then you 3D print it, stick it on yourself and now you can go pay for something.

So it's kind of, to me, like that's kind of creepy, especially in a sense of like celebrities right.

You see them in all photo shoots.

You see everyone's hands.

Like all the time.

You see people's hands in their photos.

They're waving at you.

Anyone that waves at you, if you could take a picture of that, I'm sure this is going to be a data breach security issue where you take a picture of someone's photo off of social media waving and you figure out how to make a 3D replica.

You zoom in, you enhance their hand, you make a replica, then all of a sudden you walk into any store and you can just pay for anything from their bank account.

Just like, yeah, there's some issues there that I think might have to be addressed.

So in any case, Amazon One indeed kind of presents this really intriguing step forward in the field of contactless payments and biometric identification.

While its AI driven approach is impressive, I think it has solved some key challenges around data scarcity and accuracy.

I mean, I think they were very creative in the sense that they created all those synthetic hands and trained off of that.

That was very clever.

However, I think it was with any technology involving personal data, it was really critical to trend cautiously as the technology kind of rolls out more widely.

It's going to be interesting to watch how they navigate this intricate balance between convenience and privacy and it's going to be interesting to see how people are hacking this or kind of getting past this in the case of, like I mentioned, creating a synthetic hand or something that you actually use on your own hand and could access someone's wallet or something else.

Definitely a very interesting space to be following.

If you are looking for an innovative and creative community of people using ChatGPT, you need to join our ChatGPT creators community.

I'll drop a link in the description to this podcast.

We'd love to see you there where we share tips and tricks of what is working in ChatGPT.

It's a lot easier than a podcast as you can see screenshots, you can share and comment on things that are currently working.

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So if this sounds interesting to you, check out the link in the comment.

We'd love to have you in the community.

Thanks for joining me on the OpenAI podcast.

It would mean the world to me if you would rate this podcast wherever you listen to your podcasts and I'll see you tomorrow.